

WHAT IS CLAIMED IS:

1. An isolated IL-16 antagonist peptide consisting of CLLS.
2. An isolated IL-16 antagonist peptide of any one of WQCLLS, WQALLS, VVQVVA or VKQVVA.
3. An isolated IL-16 antagonist peptide consisting of GMWQCLLS (SEQ ID NO:13).
4. An isolated peptide consisting of GMWQCLLSDSGQVLLE (SEQ ID NO:12)
5. An isolated peptide consisting of any one of TGLWQCLLSEGD (SEQ ID NO:14) or VSEEQKVVQVVA (SEQ ID NO:15).
6. An IL-16 antagonist peptide comprising Xaa₁-LL-Xaa₂, wherein Xaa₁ and Xaa₂ is any amino acid (SEQ ID NO:1).
7. The IL-16 antagonist peptide of Claim 6 wherein Xaa₁-LL-Xaa₂, is identical to the corresponding native sequence of a mammalian IL-16.
8. An IL-16 antagonist peptide comprising CLLS (SEQ ID NO:2).
9. An IL-16 antagonist peptide comprising Xaa₁-Xaa₂-Xaa₃-L-L-Xaa₄ wherein Xaa₁-Xaa₄ is any amino acid (SEQ ID NO:3).
10. The IL-16 antagonist peptide of Claim 9, wherein Xaa₁ is Trp; Xaa₂ is selected from Gln or Ala, Xaa₃ is selected from Cys or Ala and Xaa₄ is Ser.
11. The IL-16 antagonist peptide of Claim 9, wherein Xaa₁-Xaa₂-Xaa₃-L-L-Xaa₄ identical to the corresponding native sequence of a mammalian IL-16.
12. An IL-16 antagonist peptide comprising WQCLLS (SEQ ID NO:4) or WQALLS (SEQ ID NO:5).

13. An IL-16 antagonist peptide comprising Xaa₁-Val-Xaa₂-Val-Xaa₃-Xaa₄ wherein Xaa₁-Xaa₄ is an amino acid (SEQ ID NO:8)

5 14. The IL-16 antagonist peptide of Claim 13, wherein Xaa₁-Val-Xaa₂-Val-Xaa₃-Xaa₄ is identical to the corresponding native sequence of a mammalian IL-16.

15 15. An IL-16 antagonist peptide comprising VVQVVA (SEQ ID NO:9) or VVQKVA (SEQ ID NO:11).

10 16. An IL-16 antagonist peptide comprising GMWQCLLS (SEQ ID NO:13).

17. An IL-16 antagonist peptide comprising GMWQCLLSDSGQVLLE (SEQ ID NO:12).

18. An isolated nucleic acid molecule coding for any one of the peptide of Claims 1-6, 8 or 12.

15 19. An antibody directed against the peptide of any one of Claims 1-6, 8 or 12.

20. A pharmaceutical composition comprising the peptide of any of Claims 1-6, 8 or 12, and a pharmaceutically acceptable carrier.

21. A pharmaceutical composition comprising the antibody of Claim 19.

22. A method of treating an IL-16 mediated disorder in a subject, comprising administering to the subject a therapeutically effective amount of the peptide of any of Claims 1-6, 8 or 12 and a pharmaceutically acceptable carrier.

23. The method of Claim 22, wherein said IL-16 mediated disorder is an inflammatory disease selected from asthma, arthritis, inflammatory bowel disease (IBD), Systemic Lupus (SLE), multiple sclerosis (MS), Graves ophthalmopathy, atopic rhinitis, atopic dermatitis and bullous pemphigoid.

~~24. The method of Claim 23, further comprising simultaneously administering an anti-inflammatory agent selected from NSAIDS, steroids, anti-TNF α antibody, anti-CD4 antibodies, cyclosporin-A.~~

5 ~~25. A method of inhibiting the binding of IL-16 to a CD4 receptor comprising the administration of at least one peptide of any one of Claims 1-6, 8 or 12.~~

~~26. An IL-16 antagonist.~~

10 ~~27. A pharmaceutical composition comprising an IL-16 antagonist and a pharmaceutically acceptable carrier.~~

15 ~~28. A method of treating an IL-16 mediated disorder comprising blocking the interaction of IL-16 with an IL-16 receptor by the administration of an IL-16 antagonist.~~

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